

February 5, 1999 RC-99-0026

Document Control Desk **U. S. Nuclear Regulatory Commission** Washington, DC 20555

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Attention: Mr. L. M. Padovan

Gentlemen:

Subject:

DOCKET NO. 50/395 **OPERATING LICENSE NO. NPF-12** RESPONSE TO THE NRC REQUEST FOR ADDITIONAL INFORMATION REGARDING TECHNICAL SPECIFICATION CHANGE REQUEST BEST ESTIMATE ANALYZER FOR CORE OPERATIONS -NUCLEAR (BEACON) - TSP 970006

Reference: Gary J. Taylor, SCE&G, to NRC, RC-98-0168, dated September 18, 1998

VIRGIL C. SUMMER NUCLEAR STATION

Pursuant to a telephone conversation with Mr. L. M. Fadovan on January 14, 1999, South Carolina Electric and Gas Company (SCE&G) hereby provides responses to the Request for Additional Information. This information supports the Technical Specification Change Request submitted in the above referenced letter. This information is provided as an attachment to this letter.

These statements and matters set forth herein are true and correct to the best of my knowledge, information, and belief.

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NUCLEAR EXCELLENCE - A SUMMER TRADITION!

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Should you have questions, please call Mr. Philip A. Rose at (803) 345-4052.

Very truly yours.

PAR/GJT/dr

c: J. L. Skolds W. F. Conway R. R. Mahan (w/o Attachment) R. J. White L. A. Reyes NRC Resident Inspector Paulett Ledbetter J. B. Knotts, Jr. M. K. Batavia RTS (TSP 970006) File (813.20) DMS (RC-99-0026)

## STATE OF SOUTH CAROLINA COUNTY OF FAIRFIELD

TO WIT :

I hereby certify that on the <u>5<sup>44</sup></u> day of <u>FERIDARY</u> 19<u>79</u>, before me, the subscriber, a Notary Public of the State of South Carolina personally appeared Gary J. Taylor, being duly sworn, and states that he is Vice President, Nuclear Operations of the South Carolina Electric & Gas Company, a corporation of the State of South Carolina, that he provides the foregoing response for the purposes therein set forth, that the statements made are true and correct to the best of his knowledge, information, and belief, and that he was authorized to provide the response on behalf of said Corporation.

WITNESS my Hand and Notarial Seal

My Commission Expires

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## Response to Request for Additional Information BEACON Technical Specification Change Request

1. Section 4.0 "Technical Position" of the Best Estimate Analyzer for Core Operations (BEACON) Topical Report (WCAP-12472-P-A) and the "Conclusions" portion of our February 16, 1994, topical report Safety Evaluation Report contain conditions for NRC approval. How are you complying with these conditions?

**RESPONSE:** Although not specifically described in our submittal, cycle specific BEACON calibrations performed before cycle startup and at BOC will ensure that power peaking uncertainties provide 95% probability upper tolerance limits at the 95% confidence level. These calibrations are performed using Westinghouse approved methodology. Until these calibrations are complete, more conservative default uncertainties are applied. The calibrations will be documented and retained as records.

VCSNS is a Westinghouse 3-loop NSSS with Westinghouse movable incore instrumentation. All fuel is presently of Westinghouse manufacture. Therefore, VCSNS does not differ significantly from the plants that form the WCAP data-base and no additional review of WCAP applicability to VCSNS is necessary.

Because the WCAP describes an application of BEACON where the core operating limits are changed and VCSNS proposes to use BEACON as a core Technical Specification monitor of our present limits, the comments of section 4.0, #3 do not directly apply to our submittal.

2. In the third paragraph on rige 1 of your safety evaluation, you state that you determined uncertainties usi. 1 itsc-approved methodology. Is WCAP-12472 the referenced NRC-approved methodology?

RESPONSE: Yes, this document was approved by the NRC February 16,1994.

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3. In the first paragraph on page 2 of your safety evaluation, you stated that applying BEACON to VCSNS is more restrictive than that approved in the WCAP. Please provide clarification to this statement.

**RESPONSE:** The WCAP describes an application of BEACON where the AFD and QPTR core power distribution limits are eliminated from Technical Specifications and replaced with BEACON calculated limits. These limits would be less restrictive than present VCS core power distribution limits. VCSNS proposes to use BEACON to monitor core power distribution against our present limits. In this manner, our proposed app<sup>17</sup> ation is more restrictive as we are maintaining the more restrictive core power distribution limits defined in the Technical Specifications.

4. In the second paragraph on page 2 of your safety evaluation, the last sentence states that more frequent surveillance may be required under certain circumstances. Please state what those certain circumstances are, and why they are impacted.

**RESPONSE:** This is a reference to those present Technical Specifications that would require power distribution surveillance to be performed more frequently than every 31 days. Examples are rod misalignment and inoperable Nuclear Instrumentation system requirements, Technical Specifications 3.1.3.1.d.3.c, and 4.2.4.2. These the Specs are not affected by BEACON except that BEACON may be used to perform the required core power distribution measurement instead of the Movable Incore Detector System (MIDS).